CLAIMS:

1.   A method comprising sequentially displaying a plurality of two-dimensional body templates, each of the body templates illustrating a view of an external surface of a human body rotated an angle about an axis.

2.   The method of claim 1, wherein the plurality of body templates comprises a front view template and a back view template.

3.   The method of claim 1, wherein the plurality of body templates comprises a front view template, a right-side view template, a back view template, and a left-side view template.

4.   The method of claim 1, wherein a first body template illustrates a portion of the surface, and a second body template illustrates at least some of the portion of the surface illustrated by the first body template.

5.   The method of claim 1, wherein sequentially displaying the body templates comprises sequentially displaying the body templates according to commands received from a user.

6.   The method of claim 5, wherein sequentially displaying the body templates according to commands received from a user comprises displaying the body templates according to commands received via at least one of a body view selection button and a direction arrow.

7.   The method of claim 5, wherein sequentially displaying the body templates according to commands received from a user comprises:
        displaying a first one of body templates;
        receiving a command from the user;
        generating a second one of the body templates according to the command; and
        displaying the second one of the body templates.

8.   The method of claim 1, further comprising:

receiving input from a user indicating a region of one of the body templates;

regenerating the one of the body templates to illustrate the indicated region on the template; and

displaying the regenerated body template.

9.   The method of claim 8, wherein sequentially displaying the body templates comprises sequentially displaying the body templates via a display, and receiving input from a user comprises receiving input from the user via the display.

10.   The method of claim 8, wherein sequentially displaying the body templates comprises:

displaying a first one of the body templates;

generating a second one of the body templates to illustrate a view of the external surface of the human body, wherein the angle of rotation of the surface about the axis is based on the proximity of the received body region indication to an edge of the first one of the body templates; and

displaying the second one of the body templates.

11.   The method of claim 8, wherein the input comprises a two-dimensional polygon outline of the indicated region.

12.   The method of claim 8, further comprising mapping the input to a body surface coordinate system that describes the external surface of the human body.

13.   The method of claim 12, further comprising generating each of the body templates based on the body surface coordinate system.

14.   The method of claim 12, wherein the body surface coordinate system comprises a three-dimensional coordinate system.

15.   The method of claim 14, further comprising generating the three-dimensional coordinate system by applying one of a linear interpolation, a higher-order interpolation, and a spline technique to determine valid body coordinates.

16.   The method of claim 14, wherein mapping the input into a three-dimensional body surface coordinate system comprises assigning a third coordinate to each point of the indicated region of the body template.

17.   The method of claim 12, wherein the body surface coordinate system comprises a two-dimensional coordinate system.

18.   The method of claim 17, further comprising generating the two-dimensional coordinate system by mathematically peeling and flattening a representation of the external surface of the human body, and indicating continuity at edges of the body surface.

19.   The method of claim 17, wherein displaying the regenerated body template comprises projecting the two-dimensional coordinate system onto a three-dimensional frame representation of the external surface of the human body.

20.   The method of claim 8, wherein the regenerated body template comprises a first body template, the method further comprising:

          generating a second body template to illustrate at least a portion of the region of the first body template indicated by the user input; and

          displaying the second body template.

21.   The method of claim 8, wherein regenerating the one of the body templates to illustrate the indicated region on the template comprises regenerating the one of the body templates to include shading of the indicated region on the template.

22.   The method of claim 8, wherein the body region indication indicates a region of at least one of pain and paresthesia experienced by a patient.

20

23.   The method of claim 8, wherein the user comprises one of a patient and a clinician.

24.   The method of claim 1, wherein the axis comprises a vertical axis through the center of the external surface of the human body.

25.   The method of claim 1, wherein each of the body templates illustrates a view of the external surface of the human body rotated an angle about at least one of a plurality of axes.

26.   A computer-readable medium comprising instructions that cause a programmable processor to sequentially display a plurality of two-dimensional body templates, each of the body templates illustrating a view of an external surface of a human body rotated an angle about an axis.

27.   The computer-readable medium of claim 26, wherein the plurality of body templates comprises a front view template and a back view template.

28.   The computer-readable medium of claim 26, wherein the plurality of body templates comprises a front view template, a right-side view template, a back view template, and a left-side view template.

29.   The computer-readable medium of claim 26, wherein a first body template illustrates a portion of the surface, and a second body template illustrates at least some of the portion of the surface illustrated by the first body template.

30.   The computer-readable medium of claim 26, wherein the instructions that cause a programmable processor to sequentially display the body templates comprise instructions that cause a programmable processor to display the body templates according to commands received from a user.

31.   The computer-readable medium of claim 30, wherein the instructions that cause a programmable processor to sequentially display the body templates according to commands received from a user comprise instructions that cause a programmable processor to display the body templates according to commands received via at least one of a body view selection button and a direction arrow.

32.   The computer-readable medium of claim 30, wherein the instructions that cause a programmable processor to sequentially display the body templates according to commands received from a user comprise instructions that cause a programmable processor to:

   display a first one of the body templates;

   receive a command from the user;

   generate a second one of the body templates according to the command; and

   display the second one of the body templates.

33.   The computer-readable medium of claim 26, further comprising instructions that cause a programmable processor to:

   receive input from a user indicating a region of one of the body templates;

   regenerate the one of the body templates to illustrate the indicated region on the template; and

   display the regenerated body template.

34.   The computer-readable medium of claim 33, wherein the instructions that cause a programmable processor to sequentially display the body templates and receive input from a user comprise instructions that cause a programmable processor to sequentially display the body templates and receive the input via a display.

35.   The computer-readable medium of claim 33, wherein the instructions that cause a programmable processor to sequentially display the body templates comprise instructions that cause a programmable processor to:

   display a first one of the body templates;

generate a second one of the body templates to illustrate a view of the external surface of the human body, wherein the angle of rotation of the surface about the axis is based on the proximity of the received body region indication to an edge of the first one of the body templates; and

display the second one of the body templates.

36. The computer-readable medium of claim 33, wherein the input comprises a two-dimensional polygon outline of the indicated region.

37. The computer-readable medium of claim 33, further comprising instructions that cause a programmable processor to map the input to a body surface coordinate system that describes the external surface of the human body.

38. The computer-readable medium of claim 37, further comprising instructions that cause a programmable processor to generate each of the body templates based on the body surface coordinate system.

39. The computer-readable medium of claim 37, wherein the body surface coordinate system comprises a three-dimensional coordinate system.

40. The computer-readable medium of claim 39, further comprising instructions that cause a programmable processor to generate the three-dimensional coordinate system by applying one of a linear interpolation, a higher-order interpolation, and a spline technique to determine valid body coordinates.

41. The computer-readable medium of claim 37, wherein the instructions that cause a programmable processor to map the input into a three-dimensional body surface coordinate system comprise instructions that cause a programmable processor to assign a third coordinate to each point of the indicated region of the body template.

42.   The computer-readable medium of claim 37, wherein the body surface coordinate system comprises a two-dimensional coordinate system.

43.   The computer-readable medium of claim 42, further comprising instructions that cause a programmable processor to generate the two-dimensional coordinate system by mathematically peeling and flattening a representation of the external surface of the human body, and indicating continuity at edges of the body surface.

44.   The computer-readable medium of claim 42, wherein the instructions that cause a programmable processor to display the regenerated body template comprise instructions that cause a programmable processor to project the two-dimensional coordinate system onto a three-dimensional frame representation of the external surface of the human body.

45.   The computer-readable medium of claim 33, wherein the regenerated body template comprises a first body template, the medium further comprising instructions that cause a programmable processor to:

     generate a second body template to illustrate at least a portion of the region of the first body template indicated by the user input; and

     display the second body template.

46.   The computer-readable medium of claim 33, wherein the instructions that cause a programmable processor to regenerate the one of the body templates to illustrate the indicated region on the template comprise instructions that cause a programmable processor to regenerate the one of the body templates to include shading of the indicated region on the template.

47.   The computer-readable medium of claim 33, wherein the user comprises one of a patient and a clinician.

48.   The computer-readable medium of claim 26, wherein the axis comprises a vertical axis through the center of the external surface of the human body.

49.   The computer-readable medium of claim 26, wherein each of the body templates illustrates a view of the external surface of the human body rotated an angle about at least one of a plurality of axes.

50.   A device comprising:

a display; and

a processor to sequentially display a plurality of two-dimensional body templates via the display, each of the body templates illustrating a view of an external surface of a human body rotated an angle about an axis.

51.   The device of claim 50, wherein the plurality of body templates comprises a front view template and a back view template.

52.   The device of claim 50, wherein the plurality of body templates comprises a front view template, a right-side view template, a back view template, and a left-side view template.

53.   The device of claim 50, wherein a first body template illustrates a portion of the surface, and a second body template illustrates at least some of the portion of the surface illustrated by the first body template.

54.   The device of claim 50, further comprising a user input circuit, wherein the processor receives commands from a user via the user input circuit, and sequentially displays the body templates via the display according to the commands.

55.   The device of claim 54, wherein the display comprises the user input circuit, and the processor receives the commands from the user via the display.

56.   The device of claim 54, wherein the processor displays at least one of a body view selection button and a rotation direction arrow via the display for receiving the commands from the user.

57.   The device of claim 50, further comprising a user input circuit, wherein the processor receives input from the user via the user input circuit that indicates a region of the one of the body templates displayed via the display.

58.   The device of claim 57, wherein the one of the body templates comprises a first one of the body templates, and

        wherein the processor generates a second one of the body templates to illustrate a view of the external surface of the human body, the angle of rotation of the surface about the axis for the second one of the body templates based on the proximity of the received body region indication to an edge of the first one of the body templates, and displays the second one of the body templates via the display.

59.   The device of claim 57, further comprising a memory that stores the received body region indication in a body surface coordinate system that describes the external surface of the human body.

60.   The device of claim 59, wherein the processor generates each of the body templates based on the body surface coordinate system.

61.   The device of claim 59, wherein the body surface coordinate system comprises a three-dimensional coordinate system.

62.   The device of claim 61, wherein the processor generates the three-dimensional coordinate system by applying one of a linear interpolation, a higher-order interpolation, and a spline technique to determine valid body coordinates.

63.   The device of claim 59, wherein the body surface coordinate system comprises a two-dimensional coordinate system.

64.   The device of claim 63, wherein the processor generates the two-dimensional coordinate system by mathematically peeling and flattening a representation of the external surface of the human body, and indicating continuity at edges of the body surface.

65.   The device of claim 63, wherein the processor displays one of the body templates by projecting the two-dimensional coordinate system onto a three-dimensional frame representation of the external surface of the human body.

66.   The device of claim 57, wherein the processor regenerates the one of the body templates to illustrate the indicated region on the template, and displays the regenerated body template via the display.

67.   The device of claim 57, wherein the display comprises the user input circuit, and the processor receives the input via the display.

68.   The device of claim 67, wherein the user interacts with the display using a stylus.

69.   The device of claim 57, wherein the user comprises one of a patient and a clinician.

70.   The device of claim 50, wherein the device comprises a programming device to program a neurostimulation therapy device that provides electrical stimulation to a patient.

71.   The device of claim 50, wherein the device comprises a handheld computing device.

72.   A method comprising:
        displaying a two-dimensional body template that illustrates a view of an external surface of a human body;
        receiving input from a user indicating a region of the body template; and

mapping the input to a body surface coordinate system that describes the external surface of the human body.

73. The method of claim 72, wherein displaying the body template comprises generating the body template from the body surface coordinate system.

74. The method of claim 72, wherein receiving input from the user comprises receiving input from the user via a display.

75. The method of claim 72, wherein the input comprises a two-dimensional polygon outline of the indicated region.

76. The method of claim 72, wherein the body surface coordinate system comprises one of a three-dimensional coordinate system and a two-dimensional coordinate system.

77. The method of claim 76, wherein mapping the input into a three-dimensional body surface coordinate system comprises assigning a third coordinate to each point of the indicated region of the body template.

78. The method of claim 72, further comprising regenerating the body template from the coordinate system subsequent to receiving the user input, and redisplaying the body template to illustrate the indicated region.

79. The method of claim 78, wherein regenerating the body template to illustrate the indicated region on the template comprises regenerating the body template to include shading of the indicated region on the template.

80. The method of claim 78, wherein the regenerated body template comprises a first body template that illustrates a first view of the surface, the method further comprising:

generating a second body template to illustrate a second view of the surface of the body, wherein the surface is rotated an angle about an axis relative to the first view, and the

second body template illustrates at least a portion of the region of the first body template indicated by the user input; and

displaying the second body template.

81. The method of claim 72, wherein the body region indication indicates a region of at least one of pain and paresthesia experienced by a patient.

82. The method of claim 72, further comprising:

storing the coordinate system within a memory, the coordinate system including the mapped user input; and

generating body templates based on the coordinate system for presentation of the user input to a clinician.

83. A computer-readable medium comprising instructions that cause a programmable processor to:

display a two-dimensional body template that illustrates a view of an external surface of a human body;

receive input from a user indicating a region of the body template; and

map the input to a body surface coordinate system that describes the external surface of the human body.

84. The computer-readable medium of claim 83, wherein the instructions that cause a programmable processor to display the body template comprise instructions that cause a programmable processor to generate the body template from the body surface coordinate system.

85. The computer-readable medium of claim 83, wherein the instructions that cause a programmable processor to receive input comprise instructions that cause a programmable processor to receive input via a display.

86.   The computer-readable medium of claim 83, wherein the input comprises a two-dimensional polygon outline of the indicated region.

87.   The computer-readable medium of claim 83, wherein the body surface coordinate system comprises one of a three-dimensional coordinate system and a two dimensional coordinate system.

88.   The computer-readable medium of claim 87, wherein the instructions that cause a programmable processor to map the input into a three-dimensional body surface coordinate system comprise instructions that cause a programmable processor to assign a third coordinate to each point of the indicated region of the body template.

89.   The computer-readable medium of claim 83, further comprising instructions that cause a programmable processor to:
        regenerate the body template from the coordinate system subsequent to receiving the user input; and
        redisplay the body template to illustrate the indicated region.

90.   The computer-readable medium of claim 89, wherein the instructions that cause a programmable processor to regenerate the body template to illustrate the indicated region on the template comprise instructions that cause a programmable processor to regenerate the body template to include shading of the indicated region on the template.

91.   The computer-readable medium of claim 89, wherein the regenerated body template comprises a first body template that illustrates a first view of the surface, the computer-readable medium further comprising instructions that cause a programmable processor to:
        generate a second body template to illustrate a second view of the surface of the body, wherein the surface is rotated an angle about an axis relative to the first view, and the second body template illustrates at least a portion of the region of the first body template indicated by the user input; and
        display the second body template.

30

92.   The computer-readable medium of claim 83, further comprising instructions that cause a programmable processor to:

store the coordinate system within a memory, the coordinate system including the mapped user input; and

generate body templates based on the coordinate system for presentation of the user input to a clinician.

93.   A device comprising:

a display to display a two-dimensional body template that illustrates a view of an external surface of a human body;

a user input circuit to receive input from a user indicating a region of the body template;

a memory to store a body surface coordinate system that describes the external surface of the human body; and

a processor to display the body template via the display, and map the user input to the body surface coordinate system.

94.   The device of claim 93, wherein the processor generates the body template from the body surface coordinate system.

95.   The device of claim 93, wherein the display comprises the user input circuit.

96.   The device of claim 93, wherein the user input comprises a two-dimensional polygon outline of the indicated region.

97.   The device of claim 93, wherein the body surface coordinate system comprises one of a three-dimensional coordinate system and a two-dimensional coordinate system.

98. The device of claim 97, wherein the processor maps the input into the three-dimensional body surface coordinate system by assigning a third coordinate to each point of the indicated region of the body template.

99. The device of claim 93, wherein the processor regenerates the body template from the coordinate system subsequent to receiving the user input via the user input circuit, and redisplays the body template to illustrate the indicated region.

100. The device of claim 99, wherein the processor regenerates the body template to illustrate the indicated region by regenerating the body template to include shading of the indicated region on the template.

101. The device of claim 99, wherein the regenerated body template comprises a first body template that illustrates a first view of the surface, and

wherein the processor generates a second body template to illustrate a second view of the surface of the body rotated by an angle about an axis relative to the first view, the second body template illustrating at least a portion of the region of the first body template indicated by the user input, and displays the second body template via the display.

102. The device of claim 93, wherein the body region indication indicates a region of at least one of pain and paresthesia experienced by a patient.

103. The device of claim 93, wherein the memory stores the coordinate system including the mapped user input, and the processor generates body templates based on the coordinate system for presentation of the user input to a clinician via the display.

104. The device of claim 93, wherein the device comprises a programming device for programming an implantable medical device.

105. The device of claim 93, wherein the device comprises a handheld computing device.